

The
United
States
of
America

The Commissioner of Patents
and Trademarks

*Has received an application for a patent
for a new and useful invention. The title
and description of the invention are en-
closed. The requirements of law have
been complied with, and it has been de-
termined that a patent on the invention
shall be granted under the law.*

Therefore, this

United States Patent

*Grants to the person or persons having
title to this patent the right to exclude
others from making, using or selling the
invention throughout the United States
of America for the term of seventeen
years from the date of this patent, sub-
ject to the payment of maintenance fees
as provided by law.*

Harry F. Manbeck, Jr.

Commissioner of Patents and Trademarks

William G. Thompson
Attest





US005105731A

United States Patent [19][11] **Patent Number:** **5,105,731****Kraus**[45] **Date of Patent:** **Apr. 21, 1992****[54] BLOCKING OF RETURN AIR**[75] **Inventor:** Willibald Kraus, Grunstadt, Fed.
Rep. of Germany[73] **Assignee:** TRW United-Carr GmbH & Co.,
K.G., Enkenbach-Alsenborn, Fed.
Rep. of Germany[21] **Appl. No.:** 642,475[22] **Filed:** Jan. 17, 1991[30] **Foreign Application Priority Data**

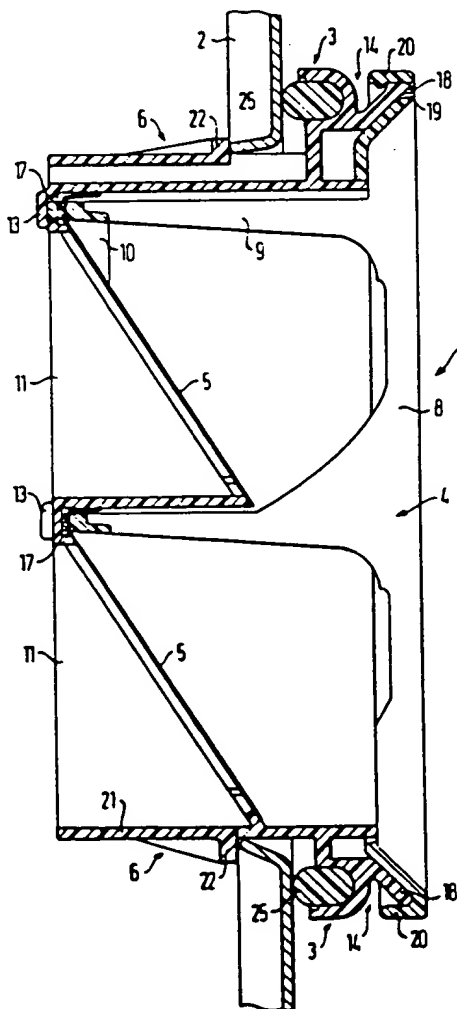
Jan. 24, 1990 [DE] Fed. Rep. of Germany 4002052

[51] **Int. Cl.:** B60H 1/26[52] **U.S. Cl.:** 454/143; 454/259[58] **Field of Search** 98/2, 2.18[56] **References Cited****U.S. PATENT DOCUMENTS**

3,405,968	10/1968	Fetes et al.	98/2.18
4,691,623	9/1987	Mizusawa	98/2.18
4,781,106	11/1988	Frien	98/2.18

Primary Examiner—Harold Joyce
Attorney, Agent, or Firm—Fay, Sharpe, Beall, Fagan,
Minnich & McKee**[57] ABSTRACT**

A check valve assembly for the ventilation duct to the passenger space of a motor vehicle comprises an outer housing (3), to which is fastened through at least one clamping connection an inner frame (4). Between the outer housing (3) and inner frame (4) there is clamped at least one check valve element (5) of flexible, soft sheet material. In the rest position, the valve element lies against an oblique grating (11). When air flows, the valve element opens and engages against stays (9). The inner frame (4) is set into the front of the outer housing (3) and the assembled unit comprised of outer housing (3) and closing valve (5) is fastened to a support (2) of the motor vehicle by at least one clip connection (6) arranged on the outer housing (3).

13 Claims, 3 Drawing Sheets**BEST AVAILABLE COPY**

ance fees
and six
ter upon
g of the
it of the
efore the
ire as of